The Role of the Private Sector in Supporting Populations Displaced by Disasters: The Case of the Philippine Disaster Resilience Foundation

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Abstract

Considered an immediate impact of disasters, displacement is counterproductive to development as it affects human, economic, and environmental gains. With disaster displacement, private sector support becomes crucial at times when governments are overstretched. Businesses can be effective agents of change in building their own resilience and that of local communities. This paper takes a closer look at how the private sector plays a significant role in supporting populations displaced by disasters. It attempts to shed light on the experience of the Philippines by illustrating the case of the Philippine Disaster Resilience Foundation (PDRF), which brings together private sector companies towards the achievement of its overarching goal of building resilience among businesses and communities in the country. This paper traces PDRF's initiatives from inception to date. Moreover, it outlines key factors that contribute to PDRF's success in designing and implementing development efforts to support local communities affected by disasters. Among these are its emphasis on building the disaster resilience of micro, small, and medium enterprises (MSMEs), maintaining its political neutrality, building institutional partnerships, investing in emergency preparedness measures, and promoting innovative practices.

Keywords

Private sector, Displaced populations, Disaster resilience, PDRF

1. Introduction

Displacement is a common and immediate impact of disasters (NRC 2020). It is counterproductive to development as it affects human, economic, and environmental gains. It can create new risks and worsen the existing vulnerabilities of certain groups such as women, children and youth, older people, persons with disabilities, and indigenous communities (ADB 2020; NRC 2020). Disasters continue to have adverse impacts on the lives, property, and livelihoods of numerous people across the globe.

At a time when governments are already overstretched, private sector support becomes crucial. Businesses can have a positive contribution towards disaster recovery and mitigation (GFDRR 2020). Public-private partnership initiatives are becoming more common. Many businesses may compete commercially with one another, but there is a growing realization among them that their collective and concerted efforts on all phases of disaster management can benefit not only their own companies but also the communities where they operate (IRP 2016). Businesses are increasingly being engaged in resilience building at the local, national, and global levels. They are seen to be agents of change in building their own resilience and that of local communities (UNDP 2017). Instead of working only on DRR efforts that promote their self-interest, the private sector

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is investing on resilience building initiatives that grow businesses and promote sustainable development (Abe et al. 2019).

It is therefore important to take a closer look at how the private sector can play a significant role in supporting populations displaced by disasters. This paper attempts to shed light on the experience of the Philippines by illustrating the case of the Philippine Disaster Resilience Foundation (PDRF), which brings together private sector companies towards the achievement of its overarching goal of building resilience among businesses and communities. It is able to coordinate and consolidate private sector efforts for effective complementation of resources. This paper outlines key factors that contribute to its success in designing and implementing development efforts to support local communities affected by disasters. Among these are its emphasis on building the disaster resilience of micro, small, and medium enterprises (MSMEs), maintaining its political neutrality, building institutional partnerships, investing in emergency preparedness measures, and promoting innovative practices.

2. Methodology and structure of the paper

This paper seeks to analyze the role that the private sector plays in supporting populations displaced by disasters. It reviews key literature on disaster displacement and the way businesses extend assistance to affected communities. The search for Journal publications was conducted in September 2021. Additional information from reports, project documents, policy papers, news articles, and institutional publications were gathered in October 2021. A key contribution of this paper is the collation and analysis of existing literature on the initiatives of PDRF as a case to exemplify how businesses can work together in providing assistance to communities affected by disasters. The results arising from the literature search were complemented by institutional knowledge from PDRF top management.

This paper is organized as follows. Section 1 presents the broad context on the importance of involving the private sector in humanitarian action and disaster risk reduction towards supporting populations displaced by disasters. Section 2 describes the methods employed in gathering information about disaster displacement, the role the private sector plays in supporting affected populations, and the development initiatives implemented in the Philippines by PDRF. Section 3 tackles the ways by which the private sector supports affected communities. Section 4 zooms in on the experience of the Philippines on disasters and displacement. Section 5 traces the initiatives of PDRF from its inception in 2009 until 2021. Section 6 discusses the unique features of PDRF as a model for generating private sector support for populations displaced by disasters. Lastly, Section 7 is about the conclusion that highlights key lessons that may be used to replicate PDRF's model in other countries.

3. Disasters, displacement, and private sector support to affected populations

Disasters often lead to the displacement of affected populations (NRC 2020). While some evacuees may be able to return relatively quickly after a hazard has abated, others may experience displacement for a protracted period to last for months or even years (Ponserre and Ginnetti 2019). Aside from disasters, conflicts and climate change further aggravate the situation of people at risk as each one intensifies the impact of the other (ISSAT 2020). Successful measures on disaster risk

reduction limit how long people are displaced and help ensure displacement occurs in a dignified manner (NRC 2020).

The number of displaced people in recent years continues to rise. Data from the Internal Displacement Monitoring Centre indicates around 40.5 million new displacements in 2020. This is the highest figure recorded in ten years, even with the Covid-19 pandemic that may have discouraged people from seeking emergency shelter outside their primary residence (IDMC 2021). It must be noted, however, that displacements may also be in the form of pre-emptive evacuations led by the government (IDMC 2020). As for the countries with the highest contributions to new internal displacements, China comes first with 5.1 million. The Philippines and Bangladesh come next with 4.4 million each (MDP 2021).

The private sector plays a significant role in reducing disaster losses and managing impacts to affected populations. Recent disaster management frameworks recognize this. The Hyogo Framework for Action 2005-2015 specifies that the private sector is among the actors concerned in protecting the social, economic, and environmental assets of communities and countries. It also highlights the importance of involving businesses on disaster prevention towards social and economic development (UNISDR 2005). Its successor, the Sendai Framework for Disaster Risk Reduction 2015-2030, provides guidance on specific actions that the private sector can do to help achieve resilience and sustainable development. Its priorities for action highlight the need to bring in businesses for a holistic approach to disaster risk reduction (UNISDR 2015). The private sector is now regarded as a stakeholder in disaster risk reduction, especially as a partner of the government (Johnson and Abe 2015; Chandra et al. 2017; UNDP 2017; UNDRR 2019; GFDRR 2020).

While governments are viewed to be primarily responsible for preventing and responding to humanitarian needs, the private sector is seen to contribute a lot in reducing and managing disaster risks. Businesses provide financial and non-financial resources to help alleviate the impacts of disasters on affected communities (Connecting Business initiative 2019). In addition, the private sector is seen to make humanitarian responses quicker and more effective, especially those businesses with local presence that act as first responders (Fenton and Foley 2015). Some even expanded their roles from being donors and service providers to being commercial actors as they respond to humanitarian crises. Businesses are seen to facilitate growth and productivity for displaced people and their host communities (Boyer and Dupont 2016). Aside from generating jobs and livelihoods, private sector interventions in internal displacement situations may also be through the provision of goods and services, finance, and affordable housing (World Bank 2021). More importantly, the private sector is also seen to play an important role in disaster preparedness and coordination (ECHO 2017). A "whole-of-society" approach is recommended to ensure the participation of the displaced populations as well as the private sector towards the identification and achievement of lasting solutions (GP20 2020).

4. Disasters and displacement in the Philippines

Located in the Pacific Ring of Fire, the Philippines is one of the most seismic countries in the world. It is also located in East Asia's typhoon belt. Its unique topography exposes it to earthquakes, volcanic activity, tropical cyclones, storms, and floods that displace millions of people each year. In 2020, about 4.4. million new disaster displacements were recorded in the Philippines. This figure is the second highest in the world, only behind China. It must be noted that the Philippines is considered a rare example of a country where it is possible to obtain

information about the way displacement evolves over time (Ponserre and Ginnetti 2019). Aside from disasters, conflict and instability in the southern part of the country also contribute to protracted displacement of people spanning decades (IDMC [no date]).

The Philippines consistently ranks among the countries in the world with the highest disaster risk in recent years, according to the World Risk Reports. In 2018, it was ranked third with a risk index value of 26.70. Out of 172 countries, the Philippines was only behind Vanuatu and Tonga (Heintze et al. 2018). It was ranked ninth in 2019 (Day et al. 2019). In 2020, it was again ranked ninth in the world with the highest disaster risk. Moreover, data shows that the Philippines was among the countries heavily affected by disasters that led to new significant internal displacement in the years of 2015 to 2019 (Behlert et al. 2020). With a risk index value of 21.39, it was ranked eighth in 2021 (Aleksandrova et al. 2021).

5. PDRF initiatives

PDRF was formed in the wake of Tropical Storm Ondoy (Ketsana) in 2009, answering the call for private sector support in the provision of relief and response assistance to affected communities. It started with a five-pillar program consisting of development interventions in shelter; livelihood; education; environment; and water, infrastructure, sanitation and health. Its model allowed corporations to participate in ways they are comfortable with. Aside from pooling their material and financial resources together, businesses also shared their expertise (Lucas 2014). It paved an avenue for businesses to be involved even in the implementation of early recovery measures.

In 2013, Super Typhoon Yolanda (Haiyan) displaced approximately 4.1 million people and destroyed 1.1 million houses. PDRF initially deployed 50 "butterfly houses" made from ecoboards, consisting of 100 percent recycled materials. It also provided 150 indigenous housing facilities in various resettlement areas in Leyte (*Philippine Daily Inquirer* 2014). PDRF intensified its efforts to address the need for quality shelter and transitional housing facilities. In partnership with the local government and the United States Agency for International Development (USAID), it provided an additional 100 "butterfly houses" as transitional dwellings for affected communities in Tacloban (Desacada 2017).

The crisis in Marawi, a city located on the southern island of Mindanao in the Philippines, happened in March 2017. It displaced thousands of local families(UNHCR Philippines 2021). Arising from a study on the Marawi City water supply system, PDRF immediately committed to the construction of 12 water tanks, in an effort to augment the water needs of those staying in transitional shelters and evacuation camps (OCHA Philippines 2018b). In collaboration with other organizations, it worked on addressing the medical, water and sanitation, livelihoods, and education needs of the affected populations. In 2018, while PDRF supported the recovery efforts in Marawi, it also responded to the Mayon volcanic eruption in January, the Super Typhoon Ompong (Mangkhut) in September, and the Typhoon Rosita (Yutu) in October (OCHA and UNDP 2020).

In total, PDRF and its partner companies were able to install 17 water tanks in underserved transitional shelter sites in 2018. These tanks provided more than 200,000 liters of clean water per day for affected communities (PDRF 2020). In addition, 10 underserved schools were given a 3,200-liter water tank each. Also part of the project was the community training on water management and hygiene to instill the value of water and how to use it sustainably (*Daily Tribune* 2019). In addition, the project included the distribution of hygiene kits and the conduct of activities

promoting proper hygiene (PDRF 2020). Understanding that jobs and livelihoods are important to wellbeing, PDRF supported the design and implementation of job fairs in Marawi. Among those that participated were local enterprises with an interest in supporting economic empowerment of the affected populations (Connecting Business initiative 2019). It must be noted, however, that while the displaced populations are still struggling to return to normalcy, the Covid-19 pandemic exacerbates their situation (UNHCR Philippines 2021).

The Covid-19 pandemic heightened the needs and vulnerabilities of internally displaced persons. Moreover, it impeded humanitarian efforts, delaying the delivery of lasting solutions (IDMC 2021). In cases like this, it is evident that local actors play a crucial role in ensuring that adequate assistance is given to those who need it the most. In the Philippines, the private sector actively mobilizes resources to support affected communities and augment the services provided by the government.

When the Taal Volcano started to erupt in January 2020, PDRF sprang into action and immediately started its relief operation in Batangas. It provided face masks, sleeping kits, and bottled water to displaced families in five evacuation centers (PDRF 2021a). Response efforts lasted for months, well beyond the onset of the Covid-19 pandemic in March 2020. Despite the additional challenge brought about by restrictions in mobility, PDRF delivered essential food and non-food items to Batangas (NDRRM Operations Center 2021). It extended much-needed aid to the communities hardest-hit by the Taal volcano eruption in nine evacuation centers in Batangas. PDRF also deployed staff to repack and distribute hygiene kits, face masks, and other donated relief items to the affected communities (PDRF 2021b). Moreover, it began the construction of a multi-purpose facility in Batangas for people burdened by disasters and pandemics. It was designed to serve as a safe haven for those severely affected by the Taal Volcano and to help them prepare for future disasters. Aside from being an accessible and disaster-resilient structure that can protect the nearby population from the threat of existing hazards, the center may also be used for community programs and activities (*The Manila Times* 2021).

With the Covid-19 pandemic in the background, PDRF adjusted its operations to ensure continuous delivery of its services while following safety measures set by the government. It distributed food and non-food relief items to vulnerable sectors and provided millions of personal protective equipment and medical supplies to hospitals (PDRF 2021a). By mid-2020, PDRF was able to coordinate and implement various response efforts of its member companies. It raised close to 1.8 billion pesos worth of cash and in-kind donations through Project Ugnayan (National Task Force on COVID-19 2020). Project Ugnayan was a multi-sectoral, collaborative effort of the private sector, which aimed to provide unconditional emergency cash transfers to help economically-vulnerable families and address the food security needs of those affected by the enhanced community quarantine (PDRF 2021a). Through Project Ugnayan, PDRF was able to reach over 7.6 million people in vulnerable communities of the Greater Metro Manila Area (PLDT 2020). By the end of the year, PDRF was able to raise donations valued at 3 billion pesos (Presidential Management Staff 2020).

Since its establishment, PDRF continues to mobilize, inform, and direct business involvement and contributions for disaster management. It engages the country's largest businesses and MSMEs (CSR Asia 2015). To date, PDRF remains to be the country's major private sector vehicle for disaster risk management.

6. PDRF as a model for private sector support to displaced populations

The private sector plays a key role in supporting populations displaced by disasters. Using the PDRF as a model, there are a number of factors identified to contribute in its successful design and implementation of development initiatives. Among these are its emphasis on building the disaster resilience of micro, small, and medium enterprises (MSMEs), maintaining political neutrality, building institutional partnerships, investing in emergency preparedness, and promoting innovation.

6.1. Strengthening disaster resilience

PDRF seeks to strengthen the disaster resilience of communities and businesses in the Philippines. With this as its overarching goal, PDRF is able to convene private sector companies to build their own disaster risk management capabilities and to contribute to the sustainable development of the Filipino people (PDRF [no date]). It is able to coordinate and consolidate private sector efforts for effective complementation of resources, especially as a means to augment the services provided by the government. It understands that disasters not only threaten the life of local populations, but also their livelihoods. For this reason, PDRF provides support to micro, small, and medium-sized enterprises (MSMEs).

Nowadays, working with larger and more established companies is considered one of the most promising ways to upgrade small and medium enterprises in fragile and development contexts (Boyer and Dupont 2016). While most of its members are big companies, PDRF believes in the strength of the supply chain, with large companies linked with MSMEs. In just a few years, PDRF reached around 7,000 MSME owners throughout the Philippines with business continuity training (OCHA and UNDP 2019; UNDRR 2019). PDRF also offers technical support towards MSME resilience as it provides capacity-building interventions in an effort to build local competitiveness and sustainability (Philippines Humanitarian Country Team 2020). PDRF, with its UN partners, also developed SIKAP – or Synergizing Recovery Initiatives, Knowledge, and Adaptation Practices for MSMEs— a unified online business recovery hub to help enterprises affected by the pandemic (OCHA and UNDP 2020). Since 2017, PDRF has been supporting internally displaced populations in Marawi, extending capacity building sessions on financing and business recovery for MSMEs (OCHA and UNDP 2021).

Moreover, as part of the National MSME Resilience Core Group, PDRF is able to further strengthen its advocacy for MSMEs. Established in 2016, the National MSME Resilience Core Group (MSME-RCG) is a public-private partnership geared towards promoting the disaster and business resilience of enterprises in the country (DTI [no date]). Through the project "Strengthening MSME Disaster Resilience in the Philippines" the MSME-RCG was able to adopt a "National Roadmap and Action Plan on Strengthening Disaster Resilience" from a framework of the iPrepare Business facility of the Asian Disaster Preparedness Center (ADPC). The Philippine national roadmap and action plan has four (4) roadmap themes: Enhancing MSME general and disaster risk data; Disaster Risk Reduction and Management (DRRM) and Business Continuity (BC) awareness and training; Tailored risk financing for MSMEs; and MSME inclusion in DRRM and Climate Change Adaptation (CCA) policy, planning, and local institutions. The thematic areas aim to provide strategic direction on MSME program enablers' plans and programs (Casado-Asensio et al. 2021). In 2019, the MSME RCG launched the MSME Guide to Disaster Resilience to serve as a reference material for MSMEs in understanding the basic concepts of disaster risk reduction and management, and business continuity practices (Mina 2019).

6.2. Maintaining political neutrality

Among the key attributes regarded to ensure its long-term sustainability is its political neutrality. PDRF was able to sustain funding from a diverse range of sources, with the majority coming from the private sector (CSR Asia 2015). Because of this, companies can aid affected communities across political lines (How the Philippines brought business into disaster recovery – GovInsider. 2017). PDRF deploys the assets of its member companies to support the needs of the communities.

PDRF works to augment the capacities of the government (DSWD 2018). It believes that disaster management is not a responsibility of the government alone (PLDT 2020). Hence, it coordinates with the government to provide support by providing necessary resources such as fuel, machinery, and manpower (JICA 2017). Known to be self-reliant in terms of resource mobilization, through PDRF and other actors the private sector is integrated in the coordination, design, and actual implementation of humanitarian action in the country (Philippines Humanitarian Country Team 2020).

6.3. Building institutional partnerships

PDRF recognizes that institutional partnerships are important in sustaining its efforts to help communities affected by disasters. In 2018, PDRF signed a memorandum of agreement (MOU) with the Department of Social Welfare and Development (DSWD) to extend help to disadvantaged populations (DSWD 2018). Under the MOU, PDRF commits to provide capacity augmentation on disaster operations, public service continuity, and interventions along disaster resiliency. The MOU seeks to strengthen public-private partnerships towards inclusive development in the country (de Vera-Ruiz 2018).

Together with the Office of Civil Defense (OCD), PDRF developed the Public Service Continuity Planning (PSCP) guidebook, which is a step-by-step guide that focuses on the development of an agency-specific public service continuity plan. It seeks to ensure that any agency is able to withstand disruptive events and continue to operate and sustain the delivery of public service (Tebrio 2020). The PSCP Guidebook was initiated as part of the PSCP Program, which was co-developed through the partnership of OCD and PDRF in 2017. This was formally institutionalized through the NDRRMC Memorandum No. 33, s. 2018 which enjoined government agencies, both on the national and local levels, to develop and implement their own public service continuity plans (Florano 2020). PDRF, through the creation of the PSCP Program aims to contribute to the strengthening of the country's overall resilience, consistent with its advocacy that both public and private sectors are the key actors in ensuring continuity of operations and critical services.

6.4. Investing in emergency preparedness

The Philippines is considered among the only few countries wherein time series displacement data may be obtained. The analysis of such data reveals the impacts of disaster preparedness and response measures (Ponserre and Ginnetti 2019). Aside from its disaster response and recovery efforts, PDRF also focuses on disaster risk reduction and emergency preparedness (CSR Asia 2015; OCHA Philippines 2018a). This is rooted in the belief among the business leaders behind PDRF that large-scale calamities are now the norm in the Philippines, being a disaster-prone country (Lucas 2014).

PDRF plays a lead role in business continuity awareness and capacity-building (UNDRR 2019). PDRF also has its own e-learning platform on disaster risk reduction, business continuity, and climate change adaptation that it calls Innovations Academy for Disaster Awareness, Preparedness, and Training (iADAPT). It aims to prepare communities against disasters (Aguinaldo 2020). Moreover, PDRF also believes that the private sector has a role to play in fighting the effects of climate change and helping reverse it (Quismorio 2021).

6.5. Promoting innovation

The private sector can promote innovation by sharing lessons and good practices, especially on how to support displaced populations (Connecting Business initiative 2019). Businesses may likewise provide innovative products and services (ISSAT 2020). Considered among its innovative practices is the establishment of PDRF's emergency operations center (EOC). It believes that there must be an efficient way of providing relief goods and responding to the needs of the populations affected by disasters. Effective coordination means partnering not just among businesses but also with governments and development-oriented organizations (Trajano 2016). Its EOC has an operations room that combines location software, data sources, and weather information. It is regarded as the world's first national EOC run by the private sector. Its central feature is the command center that monitors earthquakes, tropical cyclones, volcanic eruptions, and pandemics (PLDT 2018).

PDRF's EOC acts as a self-sufficient operations hub for training on disaster preparedness and the coordination of relief and response efforts during major disasters (OCHA and UNDP 2019). It has 24/7 capability and continues to monitor hazards and coordinate help to the areas and populations affected by disasters. Radios and satellite equipment are prepositioned to ensure that it will continue to operate even during worst case scenarios. For the EOC's disaster information management system, its main tool is the Hazard and Disaster Analysis for Business Resilience or HANDA, which is also a local term that means ready. Among the features of HANDA are the following: real-time hazard monitoring for tropical cyclones and earthquakes; access to historical and probabilistic data for risk assessment; and highly customizable dashboards for data visualization. These features provide the necessary data and tools for the stakeholders in PDRF's network to make informed decisions (Philippine private sector provides logistics support for Typhoon Ompong relief operations – Philippine Disaster Resilience Foundation. 2018).

The EOC may be used to support local and national governments as well as local and international development organizations (Philippines Humanitarian Country Team 2020). Moreover, it provides alerts and updates to PDRF member companies to coordinate asset inventory and the status of lifeline services. These greatly complement government efforts and highlight private sector initiatives in all aspects of disaster risk reduction and management (PLDT 2020). It maps data on lifeline services and public infrastructure to help protect them from hazards (PLDT 2018). Since the EOC lets its member companies coordinate with other donors, among the initiatives it can do is to direct the electricity suppliers to provide emergency power to people most in need (How the Philippines brought business into disaster recovery – GovInsider. 2017).

7. Conclusion

The private sector plays a key role in supporting populations displaced by disasters. Using PDRF as the case to examine the ways by which businesses can extend assistance to affected populations,

this paper provides an analysis of key factors that contributed to the success of its development initiatives. The private sector needs to be involved in all aspects of disaster risk management. Businesses can contribute not only in relief, response, and early recovery measures once disasters strike. More importantly, they can be involved in disaster risk reduction and preparedness efforts.

There are plenty of ways for the private sector to support populations displaced by disasters. To be effective, there are lessons that may be learned from PDRF's experience. First, it was important to anchor its advocacy on an overarching goal of strengthening the resilience of business and communities against disasters. This served as the unifying call for private sector companies to come together and help out one another as well as those adversely affected by disasters, including MSMEs. Second, it was crucial for PDRF to maintain its political neutrality. Aside from independence in designing and implementing its development initiatives, political neutrality also allowed PDRF to extend support to localities most in need. Third, institutional partnerships were instrumental in sustaining its efforts. Despite personnel changes among its partners, PDRF was able to move forward with its programs. Fourth, investments were made towards emergency preparedness. PDRF offered capacity building interventions to its member companies and to local communities to prepare them against disasters. Fifth, PDRF promoted innovation with its establishment of an EOC. Aside from providing alerts and updates to its member companies, the EOC also supported other organizations in an effort to mitigate risks and to provide support where it was needed.

Given the limited scope of this paper that focuses only on the Philippine experience in the examination of the role of the private sector in supporting populations displaced by disasters, it is recommended for further studies to be undertaken. Nevertheless, PDRF may be used as a model to initiate or improve the ways businesses are engaged in providing assistance to populations affected by disasters.

References

Abe, Y. et al. 2019. Risk informed and resilient development: Engaging the private sector in the era of the Sendai Framework. *Progress in Disaster Science* 2, p. 100020. Available at: https://www.sciencedirect.com/science/article/pii/S2590061719300201?via%3Dihub [Accessed: 22 October 2021].

ADB 2020. Understanding Disaster Displacement in Asia and the Pacific. Metro Manila. Available at: https://www.adb.org/sites/default/files/project-documents/53124/53124-001-tar-en.pdf [Accessed: 21 October 2021].

Aguinaldo, M.A.L. 2020. LGUs encouraged to collaborate to create disaster-resilient communities – BusinessWorld Online. *BusinessWorld Online*. Available at: https://www.bworldonline.com/lgus-encouraged-to-collaborate-to-create-disaster-resilient-communities/ [Accessed: 21 October 2021].

Aleksandrova, M. et al. 2021. *WorldRiskReport 2021 Focus: Social Protection*. Bonn. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/2021-world-risk-report.pdf [Accessed: 21 October 2021].

Behlert, B. et al. 2020. *WorldRiskReport 2020 Focus: Forced Displacement and Migration*. Bonn. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2020.pdf [Accessed: 21 October 2021].

Boyer, G. and Dupont, Y. 2016. The contribution of the private sector to solutions for displacement. *Forced Migration Review* 52, pp. 36–38. Available at: https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/solutions/boyer-dupont.pdf [Accessed: 21 October 2021].

Casado-Asensio, J. et al. 2021. "Lessons on engaging with the private sector to strengthen climate resilience in Guatemala, the Philippines and Senegal", OECD Development Cooperation Working Papers, No. 96. Paris. Available at: https://doi.org/10.1787/09b46b3f-en [Accessed: 21 October 2021].

Chandra, A. et al. 2017. Perspective Expert insights on a timely policy issue What Role Does the Private Sector Have in Supporting Disaster Recovery, and What Challenges Does It Face in Doing So? *Perspective*. Available at:

https://www.rand.org/content/dam/rand/pubs/perspectives/PE100/PE187/RAND_PE187.pdf [Accessed: 22 October 2021].

Connecting Business initiative 2019. *Engaging companies in manmade disasters-a guidance toolkit for private sector networks*. New York. Available at: https://www.connectingbusiness.org/system/files/2019-08/Toolkit-manmade-disasters-corrected-v2019-07-23.pdf [Accessed: 21 October 2021].

CSR Asia 2015. Partnering with the Business Sector for Disaster Preparedness, Response and Recovery: Insights into Strategic Cross-Section Partnership. Available at: https://s3-ap-southeast-1.amazonaws.com/elevatelimited-com/wp-content/uploads/publication/prudence_csrasia2015_web.pdf [Accessed: 22 October 2021].

Daily Tribune 2019. Pepsi, PDRF culminate Marawi project – Daily Tribune. 28 April. Available at: https://tribune.net.ph/index.php/2019/04/28/pepsi-pdrf-culminate-marawi-project/ [Accessed: 21 October 2021].

Day, S.J. et al. 2019. *WorldRiskReport 2019 Focus: Water Supply*. Bonn. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2019_Online_english.pdf [Accessed: 21 October 2021].

Desacada, M.G. 2017. For Yolanda homeless in Tacloban City; USAID, PRDF turn over 240 'butterfly' houses | The Freeman. *The Freeman* 1 March. Available at: https://www.philstar.com/the-freeman/region/2017/03/01/1675703/yolanda-homeless-tacloban-city-usaid-prdf-turn-over-240-butterfly-houses [Accessed: 22 October 2021].

DSWD 2018. DSWD forges partnership with PDRF for better disaster response operations | Department of Social Welfare and Development. Available at: https://www.dswd.gov.ph/dswdforges-partnership-with-pdrf-for-better-disaster-response-operations-2/ [Accessed: 21 October 2021]. DTI [no date]. MSME Disaster Resiliency | Department of Trade and Industry Philippines. Available at: https://www.dti.gov.ph/negosyo/msme-disaster-resiliency/ [Accessed: 21 October 2021].

ECHO 2017. *Humanitarian Shelter and Settlements Guidelines*. Brussels. Available at: https://ec.europa.eu/echo/files/policies/sectoral/shelter_and_settlement_guidelines.pdf [Accessed: 21 October 2021].

Fenton, W. and Foley, M. 2015. "Special feature The Typhoon Haiyan response", Humanitarian Exchange No. 63. London. Available at: https://odihpn.org/wp-content/uploads/2015/01/HE_63_new_web2_.pdf [Accessed: 21 October 2021].

Florano, E.R. 2020. Public secor continuity planning: Preparing the bureaucracy in the "age of the new normal." *International Public Management Review* 19(2), pp. 89–114. Available at: https://journals.sfu.ca/ipmr/index.php/ipmr/article/view/365 [Accessed: 21 October 2021].

GFDRR 2020. Private Disaster Recovery Guidance Series: Sector Participation in Disaster Recovery and Mitigation. Washington, DC. Available at: https://www.gfdrr.org/sites/default/files/publication/Private_Sector_Guidance_Note_DRAFT%2 06_LOWRES.pdf [Accessed: 22 October 2021].

GP20 2020. Submission from the GP20 Initiative to the UN Secretary General's High-Level Panel on Internal Displacement. Available at: https://www.globalprotectioncluster.org/wp-content/uploads/GP20-submission-to-High-Level-Panel-final-8-May_-NEW.pdf [Accessed: 21 October 2021].

Heintze, H.-J. et al. 2018. *WorldRiskReport 2018 Focus: Child Protection and Children's Rights*. Bonn. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2018.pdf [Accessed: 21 October 2021].

How the Philippines brought business into disaster recovery – GovInsider. 2017. Available at: https://govinsider.asia/smart-gov/philippines-typhoon-haiyan-disaster-recovery-pdrf/ [Accessed: 21 October 2021].

IDMC 2020. *Global report on internal displacement 2020*. Geneva. Available at: https://www.internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf [Accessed: 21 October 2021].

IDMC 2021. *Global report on internal displacement 2021: Internal displacement in a changing climate*. Geneva. Available at: https://www.internal-displacement.org/sites/default/files/publications/documents/grid2021_idmc.pdf [Accessed: 21 October 2021].

IDMC [no date]. Philippines | IDMC. Available at: https://www.internaldisplacement.org/countries/philippines [Accessed: 21 October 2021]. IRP 2016. *Guidance Note on Recovery: Private Sector*. Kobe. Available at: https://www.recoveryplatform.org/assets/Guidance_Notes/Guidance%20Note%20on%20Recove ry-Private%20Sector.pdf [Accessed: 22 October 2021].

ISSAT 2020. Disaster Risk Reduction, Preparedness and Relief & the Security Sector: Operationalizing the humanitarian-security-development nexus through security sector governance for an inclusive, rights-based, disaster risk response. Geneva. Available at: https://issat.dcaf.ch/download/153816/3194309/Final%20ISSAT%20SSR_DRR_TiP%20May20 20.pdf [Accessed: 21 October 2021].

JICA 2017. Data collection survey for strategy development of disaster risk reduction and management sector in the Republic of the Philippines: Final report. Tokyo. Available at: https://openjicareport.jica.go.jp/pdf/12285003.pdf [Accessed: 21 October 2021].

Johnson, D.A.K. and Abe, Y. 2015. Global Overview on the Role of the Private Sector in Disaster Risk Reduction: Scopes, Challenges, and Potentials. In: Izumi, T. and Shaw, R. eds. *Disaster Management and Private Sectors. Disaster Risk Reduction (Methods, Approaches and Practices)*. Tokyo: Springer, pp. 11–29. Available at: https://link.springer.com/chapter/10.1007/978-4-431-55414-1 2 [Accessed: 22 October 2021].

Lucas, D. 2014. For Yolanda–and future calamities–the private sector stands ready – Philippine Daily Inquirer. *Philippine Daily Inquirer* 2 March. Available at: https://business.inquirer.net/165194/for-yolanda-and-future-calamities-the-private-sector-stands-ready [Accessed: 21 October 2021].

MDP 2021. Data on statistics on environmental migration – Migration Data Portal. Available at: https://www.migrationdataportal.org/themes/environmental_migration_and_statistics [Accessed: 21 October 2021].

Mina, K. 2019. MSMEs sign up for resiliency plan – BusinessWorld Online. *BusinessWorld* 18 July. Available at: https://www.bworldonline.com/msmes-sign-up-for-resiliency-plan/ [Accessed: 21 October 2021].

National Task Force on COVID-19 2020. *Situational Report No. 91*. Metro Manila. Available at: https://ndrrmc.gov.ph/attachments/article/4036/Update_SitRep_No_91_NTF_COVID_19_as_of _30JUN2020_12NN.pdf [Accessed: 21 October 2021].

NDRRM Operations Center 2021. *Situational Report for Taal Volcano Phreatomagmatic Eruption*. Metro Manila. Available at: https://monitoring-dashboard.ndrrmc.gov.ph/exports/situation_actions/situational-report-for-taal-volcano-phreatomagmatic-eruption-2021 [Accessed: 22 October 2021].

NRC 2020. Addressing disaster displacement in disaster risk reduction policy and practice: A checklist. Oslo. Available at: https://www.undrr.org/sites/default/files/2021-02/WiA_Displacement_Checklist_En_0.pdf [Accessed: 21 October 2021].

OCHA Philippines 2018a. *Philippines Humanitarian Bulletin Issue No. 2*. Metro Manila. Available at:

https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/fil es/ochaphilippines_humanitarian_bulletin_no2_march_2018_final.pdf [Accessed: 21 October 2021].

OCHA Philippines 2018b. *Philippines Humanitarian Bulletin Issue No. 5*. Metro Manila. Available at:

https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/fil es/ochaphilippines_humanitarian_bulletin_no5_june2018_final.pdf [Accessed: 21 October 2021].

OCHA and UNDP 2019. *Connecting Business initiative: Progress Report 2018*. New York. Available at: https://agendaforhumanity.org/sites/default/files/resources/2019/Jun/CBi_ANNUAL_REPORT %202018-compressed.pdf [Accessed: 21 October 2021].

OCHA and UNDP 2020. *Connecting Business initiative: Progress Report 2019*. New York. Available at: https://www.unocha.org/sites/unocha/files/CBi-ProgressReport2019.pdf [Accessed: 21 October 2021].

OCHA and UNDP 2021. The Connecting Business initiative submission to the United Nations Secretary-General's High-Level Panel on Internal Displacement. Available at: https://www.un.org/internal-displacement-panel/sites/www.un.org.internal-displacement-panel/files/final_cbi_submission_to_the_unsgs_high-level_panel_on_internal_displacement.pdf [Accessed: 21 October 2021].

PDRF 2020. *PDRF 2019 Annual Report*. Metro Manila. Available at: https://www.pdrf.org/wp-content/uploads/2021/04/PDRF-2019-Annual-Report_FINAL-06OCT2020.pdf [Accessed: 21 October 2021].

PDRF 2021a. *PDRF 2020 Annual Report*. Metro Manila. Available at: https://www.pdrf.org/wp-content/uploads/2021/09/PDRF_Annual_-Report_2020_press.pdf [Accessed: 21 October 2021].

PDRF 2021b. PDRF, partners deliver crucial aid to Taal-stricken areas - Philippines | ReliefWeb. Available at: https://reliefweb.int/report/philippines/pdrf-partners-deliver-crucial-aid-taal-stricken-areas [Accessed: 21 October 2021].

PDRF [no date]. Philippine Disaster Resilience Foundation. Available at: https://www.pdrf.org/ [Accessed: 22 October 2021].

Philippine Daily Inquirer 2014. PDRF continues Yolanda rehabilitation efforts – Philippine Daily Inquirer. 9 November. Available at: https://business.inquirer.net/181672/pdrf-continues-yolanda-rehabilitation-efforts [Accessed: 21 October 2021].

Philippine private sector provides logistics support for Typhoon Ompong relief operations – Philippine Disaster Resilience Foundation. 2018. Available at: https://www.pdrf.org/press-releases/philippine-private-sector-provides-logistics-support-for-typhoon-ompong-relief-operations/ [Accessed: 21 October 2021].

Philippines Humanitarian Country Team 2020. *Super Typhoon Goni (Rolly) and Typhoon Vamco (Ulysses): Humanitarian Needs and Priorities, Philippines*. Metro Manila. Available at: https://philippines.un.org/sites/default/files/2020-12/PHL-TyphoonGoniVamco-HumNeedsPriorities-Revision-201126.pdf [Accessed: 21 October 2021].

PLDT 2018. PDRF inaugurates world's first private sector-led national emergency operations center. Available at: https://www.pldt.com/news-center/article/2018/04/04/pdrf-inaugurates-world's-first-private-sector-led-national-emergency-operations-center#.YXE3QNlByjC [Accessed: 21 October 2021].

PLDT 2020. *PLDT 2019 Sustainability Report*. Metro Manila. Available at: https://www.pldt.com/docs/default-source/annual-reports/sustainability-report/in-good-company_final_772020.pdf?sfvrsn=0 [Accessed: 21 October 2021].

Ponserre, S. and Ginnetti, J. 2019. *Disaster Displacement: A global review, 2008-2018*. Geneva. Available at: https://www.internal-displacement.org/sites/default/files/publications/documents/201905-disaster-displacement-global-review-2008-2018.pdf [Accessed: 21 October 2021].

Presidential Management Staff 2020. *Bayanihan, panaghiusa at pag-asa: Moving as one nation towards a better normal - The President's penultimate report to the people 2016-2020*. Metro Manila. Available at: https://pms.gov.ph/images/PeeDeeEf/2020_PRP_PRRD.pdf [Accessed: 21 October 2021].

Quismorio, E. 2021. Private sector's hand essential in climate change mitigation efforts – Manila Bulletin. *Manila Bulletin* 27 June. Available at: https://mb.com.ph/2021/06/27/private-sectors-hand-essential-in-climate-change-mitigation-efforts/ [Accessed: 21 October 2021].

Tebrio, S. 2020. Ensuring Public Service Continuity Amid Emergencies: NDRRMC, PDRF Launch PSCP Guidebook. *The Civil Defense Gazette* 8(2), pp. 7–7. Available at: https://www.ocd.gov.ph/attachments/category/31/CMYK-FINAL-Gazette_2020_V08I02.pdf [Accessed: 21 October 2021].

The Manila Times 2021. BPI, PDRF begin construction of disaster, pandemic facility | The Manila Times. 6 May. Available at: https://www.manilatimes.net/2021/05/06/public-square/bpi-pdrf-begin-construction-of-disaster-pandemic-facility/870344 [Accessed: 21 October 2021].

Trajano, J.C. 2016. "Building resilience from within: Enhancing humanitarian civil-military coordination in post-Haiyan Philippines", NTS Report No. 6. Singapore. Available at: https://www.rsis.edu.sg/wp-content/uploads/2016/12/NTS-Report-Building-Resilience-from-

Within-Enhancing-Humanitarian-Civil-Military-Coordination-in-Post-Haiyan-Philippines-final.pdf [Accessed: 21 October 2021].

UNDP 2017. Pacific Risk Resilience Programme Focus Note - The Building Blocks for Successful Private Sector Engagement: Engaging the Private Sector in Building Resilience. Available at: https://www.connectingbusiness.org/system/files/2017-11/Focus%20Notes-PrivateSector-23Aug-Web_0_0.pdf [Accessed: 22 October 2021].

UNDRR 2019. *Global Assessment Report on Disaster Risk Reduction 2019*. Geneva. Available at: https://gar.undrr.org/sites/default/files/reports/2019-05/full_gar_report.pdf [Accessed: 21 October 2021].

UNHCR Philippines 2021. *Mindanao Displacement Dashboard Issue No. 83*. Metro Manila. Available at: http://www.protectionclusterphilippines.org/wp-content/uploads/2021/09/Mindanao-Displacement-Dashboard_-AUG2021.pdf [Accessed: 21 October 2021].

UNISDR 2005. *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*. New York. Available at: https://www.preventionweb.net/files/1037_hyogoframeworkforactionenglish.pdf [Accessed: 22 October 2021].

UNISDR 2015. *Sendai Framework for Disaster Risk Reduction 2015-2030*. New York. Available at: https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf [Accessed: 22 October 2021].

de Vera-Ruiz, E. 2018. DSWD partners with disaster resilience foundation for better response – Manila Bulletin. *Manila Bulletin* 22 August. Available at: https://mb.com.ph/2018/08/22/dswd-partners-with-disaster-resilience-foundation-for-better-response/ [Accessed: 21 October 2021].

World Bank 2021. *A Development Approach to Conflict-Induced Internal Displacement*. Washington, DC: World Bank, Washington, DC. Available at: https://openknowledge.worldbank.org/handle/10986/35505 [Accessed: 21 October 2021].